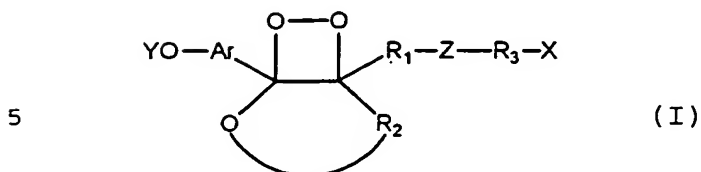


ABSTRACT OF THE DISCLOSURE

A 1,2-dioxetane derivative of the formula (I):



wherein Ar is an aryl group which may have an alkyl group, an aryl group, a halogen atom, an alkoxy group, a carboxyl group, a formyl group, an alkyl ester, an aryl ester, an alkylketone, an arylketone or a hetero ring bonded thereto, X is a substituent capable of labeling an organic compound or a biological molecule, or an ester, Y is a hydrogen atom, an acyl group or a group of the formula $-\text{Si}(\text{R}_4\text{R}_5\text{R}_6)$ (wherein each of R_4 , R_5 and R_6 which are independent of one another, is an alkyl group or an aryl group), Z is an alkyl group, an aryl group, an oxygen atom, a sulfur atom, a carbonyl group, $-(\text{CO})-\text{O}-$, $-\text{O}-(\text{CO})-$, $-\text{NH}-$, $-\text{NH}-\text{CO}-$, $-\text{CO}-\text{NH}-$, $-\text{OSi}(\text{R}_7\text{R}_8)-$ (wherein each of R_7 and R_8 which are independent of each other, is an alkyl group or aryl group) or a group of the formula $-(\text{R}_9\text{R}_{10})\text{SiO}-$ (wherein each of R_9 and R_{10} which are independent of each other, is an alkyl group or an aryl group), each of R_1 and R_2 is an alkyl group or an aryl group, and R_3 is a spacer.